DRAWINGS

Applicants have provided new Figures 4A and 4B in accordance with the Examiner's comments in the Notice of Allowance.

IN THE SPECIFICATION

At page 6 of the specification, please replace the BRIEF DESCRIPTION OF THE DRAWINGS with the following new BRIEF DESCRIPTION OF THE DRAWINGS:

--- BRIEF DESCRIPTION OF THE DRAWINGS

For a more complete understanding of the present invention and its advantages, reference is now made to the following descriptions, taken in conjunction with the accompanying drawings, in which:

FIGURE 1 is a block diagram illustrating a communication coupling incorporating aspects of the present invention, which couples a communication system with a communication network;

FIGURE 2A is an isometric view illustrating the communication coupling of FIGURE 1, in accordance with a particular embodiment of the present invention;

FIGURE 2B is a schematic wiring diagram, illustrating components of the communication coupling of FIGURE 1;

FIGURE 3A is an isometric view illustrating an alternative embodiment communication coupling;

FIGURE 3B is a schematic wiring diagram, illustrating components of the communication coupling of FIGURE 3A; and

FIGURE 4A is an isometric view illustrating the communication coupling of FIGURE 1, in accordance with a particular embodiment of the present invention;

FIGURE 4B is a schematic wiring diagram, illustrating components of the communication coupling of FIGURE 1.---

At page 27, line 3 of the specification, please insert the following new paragraphs:

--- FIGURES 4A and 4B illustrate communication coupling 42 and its internal wiring and components, including communication ports 82, 83, and 85. Communication port 82 couples communication coupling 42 with modular jack 44 using communication link 67. Accordingly, communication port 82 is operable to receive communication signals from communication network 52.

Communication port 85 couples communication coupling 42 with communication system 36, using communication link 73. Communication link 73 of communication coupling 42 includes modular plug 91, which is used to couple communication coupling 42 with communication system 36. In a particular embodiment, communication link 73 may be wired directly to communication system 36 in lieu of using modular plug 91.

Communication link 73 is operable to provide a telecommunications coupling between communication coupling 42 and communication system 36. Communication port 85 transmits and receives analog telephone signals between and among communication coupling 42 and communication system 36.

Communication link 74 provides a coupling between communication coupling 42 and communication system 36 to accommodate both analog telephone signals and high-speed data signal transfer between communication coupling 42 and communication system 36. In a particular embodiment, communication link 74 allows communication system 36 to at least partially control and communicate analog telephone signals and/or high speed data signals to terminal units throughout internal network 80, which are not directly connected with communication system 36, including terminal units 46 and 50. Accordingly, a user may take advantage of existing telephone wiring within internal network 80 and need not directly connect each terminal unit to communication system 36 to maintain central control and distribution of communication signals from communication system 36.

In the illustrated embodiment, modular jacks 44 and communication ports 82, 83, and 85 are used to couple communication coupling 42 with various network elements and components. However, in alternative embodiments, such couplings may be accomplished using modular jacks, plugs, and/or direct wiring of communication links 67 and/or 73-74, in lieu of the illustrated modular jack 44 and communication ports 82, 83, and 85.

Communication ports 82-83 of the illustrated embodiment are two-pair (four conductor) communication ports. Modular plug 91 is a one-pair (two conductors) modular

plug. As described above, in alternative embodiments, various configurations of communication ports and modular plugs having multiple conductor configurations, including six or more conductors, are available for use within the teachings of the present invention.

Communication port 82 of communication coupling 42 receives communication signals including high-speed data and analog telephone signals, from modular jack 44. Communication port 82 includes an "inner pair" of conductors 100, 101 and an "outer pair" of conductors 102, 103. The distribution of signals between conductors 100-103 and other components of communication coupling 42 are controlled, in part, by a four pole, double throw (two-position) switch 96, which is actuated by a switch selector 94. Selector 94 allows a user to select setting "pair 1" or "pair 2". The implications of this selection are evident with regard to the internal wiring diagram of FIGURE 4B, and will be described below, in more detail.

When selector 94 is in the "pair 1" position, conductors 100 and 101 are coupled with an internal microfilter 98 using conductors 106 and 107. Conductors 104 and 105 couple microfilter 98 with modular plug 91. In a particular embodiment, microfilter 98 filters signals based upon their frequency, and only allows a range of lower frequency band signals (e.g., analog telephone signals) to be transmitted to modular plug 91. Accordingly, analog telephone signals and high-speed data signals received by conductors 100, 101 are received at internal microfilter 98, and microfilter 98 prevents the high-speed data signals from being transmitted to modular plug 91.

Moreover, microfilter 98 prevents analog telephone "noise" generated by analog telephone signals through communication system 36 from affecting the operation of the WAN. Therefore, analog telephone signals received by modular plug 91 from communication system 36 are prevented from passing through internal microfilter 98. Microfilter 98 of the illustrated embodiment is internal to communication coupling 42. However, in alternative embodiments, microfilter 98 may comprise an external component coupled with communication coupling 42, between modular plug 91 and communication coupling 42.

Modular plug 83 is coupled with a pair of conductors 110 and 111. When selector 94 is in the "pair 1" position, conductors 110 and 111 are coupled with conductors 102 and 103, respectively. Accordingly, modular plug 83 may be coupled with communication system 36 in order to communicate signals between communication system 36 and modular plug 82.

When selector 94 is moved to the "pair 2" position, switch 96 is actuated which reconfigures the paths of communication within communication coupling 42. In the "pair 2" position, conductors 100 and 101 are coupled with conductors 110 and 111, respectively. Therefore, signals received by modular plug 83 from communication system 36 are communicated between modular plug 83 and modular plug 82 using the "inner pair" of conductors 100 and 101.

Furthermore, when selector 94 is in the "pair 2" position, conductors 102 and 103 are coupled with conductors 106 and 107. In this manner, communication signals communicated between conductors 102 and 103 and modular plug 91 pass through internal microfilter 98. Conversely, communication signals communicated between conductors 102, 103 and modular plug 90 do not pass through microfilter 98.

In a particular embodiment, ADSL signals and analog telephone signals are received by communication port 82 using communication link 67. Such signals pass through microfilter 98, which filters out high frequency signals and allows only the low frequency analog telephone signals to pass through to modular plug 91. Modular plug 91 then communicates the low frequency analog telephone signals to communication system 36.

Modular plug 83 allows communication system 36 to transmit certain low frequency analog telephone signals to communication coupling 42, for transmission to modular jack 44 and terminal units 50. Furthermore, selector 94 and switch 96 ensure that the communication signals received by communication port 82 and the analog telephone signals transmitted from communication port 82 to modular jack 44 will not share the same conductors 100-103, simultaneously.

Many telcos transmit ADSL signals and analog telephone signals to an internal network using the "inner pair" of a four-conductor communication link. Switch 96 ensures that in order to receive such signals at "inner pair" conductors 100 and 101, "outer pair" conductors 102 and 103 are used to transmit analog telephone signals from communication port 82 to modular jack 44. However, standard telecommunications equipment is configured to receive communication signals using the "inner pair" of a four-conductor communication link. Accordingly, if ADSL signals and analog telephone signals are received by communication coupling 42 using the "inner pair" of conductors 100, 101, terminal units 50 will receive all incoming calls on their respective "inner pair" of conductors, as communication coupling 42 receives them.

However, terminal units 50 may be configured to receive signals on their respective "outer pair" of conductors by adding an adapter to each phone. This will prevent terminal units 50 from ringing unless communication system 36 sends a "ring" signal to one of terminal units 50. Therefore, in order to transmit low frequency signals to terminal units 50 using "outer pair" conductors 102 and 103, terminal units 50 may require special adapters and/or filters which transfer the signals to the "outer pair" of conductors of a four-conductor communication link.

Communication coupling 42 provides a method and apparatus to transmit low frequency signals to terminal units 50 without having to specially configure each terminal unit 50 to receive such signals using the "outer pair" of conductors. Furthermore, ADSL signals may be received at communication port 82 such that the ADSL signals received by communication port 82 and low frequency analog telephone signals transmitted by communication port 82 do not share the same communication path over conductors 100-103.

In a particular embodiment, network interface device 44, modular jack 44 and/or another component of communication network 52 may be configured such that communication signals received from network 52 are received at communication port 82 using "outer pair" conductors 102 and 103. Switch 96 may then be placed in the "pair 2" position such that such signals are transmitted to communication system 36. In this manner, analog telephone signals transmitted from communication system 36 to modular plug 83 for distribution to one or more of terminal units 50 are transmitted using "inner pair" conductors 100 and 101. Therefore, the analog telephone signals may be received by terminal units 50 using an "inner pair" of conductors associated with communication links 67 and 70. Furthermore, terminal units 50 may include "off the shelf" communications equipment and no adapters, or modifications are required.

The use of communication system 36 to distribute low frequency signals to terminal units 50 allows terminal units 50 to operate subject to the control of communication system 36. Accordingly, services and functionality provided by communication system 36 are available to terminal units 50. For example, communication system 36 can distribute telephone calls to one or more of terminal units 50 based upon the call origination. Communication system 36 may be configured to determine which particular terminal unit 50 should ring depending upon the caller ID. Furthermore, communication system 36 may be configured to provide different rings or signals to terminal units 50 based upon pre-configured options selected by a programmer of communication system 36. Communication

system 36 may also be configured to provide intercom features and/or LAN capability to terminal units 50.---